

EPA Puget Sound Financial and Ecosystem Accounting Tracking System (FEATS)

Photo by Rebecca Pirtle, Editor, Kingston Community News (Doe-Kag-Wats Estuary of the Suquamish Tribe)

PROJECT INFORMATION

1. Federal Grant Number	PC-00J201-05	*2a. Reporting Period Start Date:	4/1/2017	*2b. Reporting Period End Date:	9/30/2017
3. Recipient Organization (Name and complete address including zip code) Name: Washington Department of Ecology Address 1: P.O. Box 47600 Address 2: City: Olympia State: WA Zip Code: 98504-7600			4. Project Manager Contact Information Name: Diane Dent Phone: (360) 407-6616 Ext: Fax: (360) 407-6426 Email: diane.dent@ecy.wa.gov		
5a. Program (RFP) ECO Lead Org RFP	5b. Project Title Toxics and Nutrients Program		*6. Collaborating Organizations/Partners Department of Health and numerous other entities for subawards. <input type="checkbox"/> Subawardee		

<u>Submission Instructions:</u> EPA fills in the white boxes. Grantee fills in the yellow boxes (boxes with asterisks). Refer to guidance document for how to fill out the boxes. After completing the form, save and e-mail it to the Project Officer and cc: the Technical Monitor.	Project Officer: Gina Bonifacino U.S. Environmental Protection Agency Email: Bonifacino.Gina@epamail.epa.gov Technical Monitor: Gina Bonifacino U.S. Environmental Protection Agency Email: Bonifacino.Gina@epamail.epa.gov	*7a. Name/Title of Person Submitting Report	Diane Dent
		*7b. Date Report Submitted	10/31/2017

FUNDING/COST ANALYSIS

8a. Total EPA Assistance Amount Awarded:	\$15,666,743.00	8b. Funding Year (Federal Fiscal Year Funds Appropriated)	FY 2010 FY 2011 FY 2012 -----	*9. Total EPA Amount Expended To-Date:	\$15,666,743.00	*10. Funds Drawn Down from EPA To-Date:	\$15,666,743.00
11. Match Amount Required	\$15,666,743.00	*12. Total Match Amount Expended and Documented To-Date:	\$16,650,852.00	*13. Have you experienced any cost overruns or high unit costs?	No individual projects have cost overruns and the grant in its entirety does not have overruns)		
*14. What issues or questions do you need the EPA Project Officer or Technical Monitor to respond to?		None. Note: Final Report. Currently, match exceeds grant due to front loading. (see item 23a Component #5.					

BUDGET UPDATE

	15a. APPROVED BUDGET			*15b. SPENT TO-DATE		
	EPA	MATCH	TOTAL	EPA	MATCH	TOTAL
Personnel	\$2,550,528.00	\$0.00	\$2,550,528.00	\$2,280,620.00	\$0.00	\$2,280,620.00
Fringe Benefits	\$775,361.00		\$775,361.00	\$799,092.00	\$0.00	\$799,092.00
Travel	\$39,150.00		\$39,150.00	\$57,428.00	\$0.00	\$57,428.00
Equipment	\$150,000.00		\$150,000.00	\$147,428.00	\$0.00	\$147,428.00
Supplies	\$165,734.00		\$165,734.00	\$204,220.00	\$0.00	\$204,220.00
Contracts	\$0.00		\$ 0.00	\$0.00	\$0.00	\$ 0.00
Other	\$43,228,336.00	\$48,000,000.00	\$91,228,336.00	\$11,217,444.00	\$16,650,852.00	\$27,868,296.00
TOTAL DIRECT CHARGES	\$46,909,109.00	\$48,000,000.00	\$94,909,109.00	\$14,706,232.00	\$0.00	\$14,706,232.00
Indirect Charges	\$1,090,891.00		\$1,090,891.00	\$960,511.00	\$0.00	\$960,511.00
TOTAL	\$48,000,000.00	\$48,000,000.00	\$96,000,000.00	\$15,666,743.00	\$0.00	\$14,927,353.00
*Explain Any Discrepancies:						

ECOSYSTEM GOALS ADDRESSED

16a. Primary Goal	Water Quality					
16b. Additional Goals	Healthy Habitat	Healthy Species	Human Health	-----	-----	-----

DIRECT THREATS ADDRESSED

17a. Primary Threat	Surface Water Loading/Runoff from the Built Env					
17b. Secondary Threat(s)	Point Source Pollution	Onsite Sewage Systems	Agriculture/Livestock			

LINKAGES TO PUGET SOUND ACTION AGENDA

18a. Strategic Priorities Employed	Priority A	Priority B	Priority C	Priority D	-----
18b. Near-Term Actions Supported	C.1.N9; C.3.N1; C.1.1.10; C1.1.1; C.1.1.4; C.1.1.7				
18c. Other Actions Supported	C.1.1.1; C.2.3; C.4				

LINKAGES TO EPA PUGET SOUND MEASURES

19. Measure(s)	Contaminated Sediments	Habitat Restored/Protected	Shellfish Beds
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LINKAGES TO PUGET SOUND DASHBOARD INDICATORS

20a. Primary Indicator	Toxics in Sediments					
20b. Additional Indicators	Toxics in Fish	Marine Water Quality Index	Freshwater Quality Index	-----	-----	

PROJECT LOCATION

21a. Latitude		21b. Longitude	
21c. Hydrologic Unit Code	171100 - Sound-wide	171100 - Sound-wide	171100 - Sound-wide
21d. Action Area	Sound-wide	-----	-----

MEASURES OF SUCCESS (Key Grant Outputs)

*22a. Description (e.g., "shellfish beds reopened")	*22b. Unit (e.g., "acres")	*22c. Project Target ("number")	*22d. Project Measure To-Date ("number")
Six-year strategy on how to prevent, reduce, and control toxics and nutrient loadings to Puget Sound.	Complete six-year strategy	1	1
Fund prioritized subawards to prevent, reduce, and control toxics and nutrients.	Number of implementation projects funded	20	40
Complete prioritized subawards to prevent, reduce, and control toxics and nutrients.	Number of implementation projects completed	20	28
Fund scientific data gaps in our understanding of the sources, pathways, loadings, and impacts from toxics and nutrients.	Number of scientific investigation projects funded	10	19
Fill scientific data gaps in our understanding of the sources, pathways, loadings, and impacts from toxics and nutrients.	Number of scientific investigation projects completed	10	7
Write state guidance for developing safer alternatives assessments for products that contain or release toxics. Complete high-priority alternatives assessments.	Projects completed (guidance and alternatives assessments)	3	1
Inspections of businesses that use toxic chemicals to provide technical assistance and compliance to prevent release of those toxics to the environment (funding local source control specialists in Bothell, Everett, Puyallup, and Port Angeles).	Number of businesses inspected	800	2,738
Prevent polycyclic aromatic hydrocarbon (PAH) pollution from entering the environment.	Estimated pounds of PAH pollution per year prevented	700	1,216
Test products to enforce the ban on PBDEs.	Number of products tested	150	169
Best Management Practices (BMPs) installed on agricultural land to prevent nutrient and pathogen pollution.	Number of agriculture BMPs installed	40	38
Evaluation (and approval if supported by evaluation) of non-proprietary technologies for removing nitrogen in septic systems.	Number of technologies evaluated	3	3

PROJECT MILESTONES

Instructions: In the tables below, please explain your progress toward meeting agreed outputs for the period, **reasons for slippages**, and any additional information including **reflections, lessons learned, and/or thoughtful analysis**. When appropriate, include analysis and information of **cost overruns or high unit costs**, and changes to work plan or budget not requiring prior approval from EPA. We encourage photo documentation - please attach to the report as a separate document.

23a. Work Plan Component/Task: Component #1: Coordination and Partnership

23b. Action Agenda Action(s) Addressed: C.1 Prevent Pollutants from being introduced into the Puget Sound ecosystem to decrease the loadings from toxics, nutrients and pathogens

***23c. Estimated Costs:** \$217,054.00

Actual Costs to Date: \$87,408.00

(If required by PO)

23d. Sub-Task No.	23e. Sub-Task Description	*23f. Date	*23g. Status	23h. Outputs/Deliverables	*23i. Remarks
1.1	L.O. Coordination Team	4/20/2011	COMPLETED	members, rules, plan	Completed April 20, 2011. Coordination ongoing.
1.2	Toxics Core Group	4/20/2011	COMPLETED	members, rules	Decision-making meetings ongoing (see sharepoint site)
1.3	Subaward management system	4/6/2011	COMPLETED	System description delivered to the EPA	Management Process Flow approved by EPA 4/6/11.
1.4	Strategic Input from Management Conference	9/30/2015	COMPLETED	Summary of input received	Now that round 6 has been awarded in accordance with our management conference vetted workplan, this task is complete. Of course we continue to work with our partners at EPA and PSP to adaptively manage the NEP award.

23a. Work Plan Component/Task: Component #2: Strategic Investments

23b. Action Agenda Action(s) Addressed: Same as above

***23c. Estimated Costs:**

Actual Costs to Date:

(If required by PO)

23d. Sub-Task No.	23e. Sub-Task Description	*23f. Date	*23g. Status	23h. Outputs/Deliverables	*23i. Remarks
2.1	Establish Round 1 and 2 priorities	11/7/2011	COMPLETED	Refined logic models and priorities	Established Round 1, 2, 3, and 4 projects. See attached spreadsheet for sub-reipient details.
2.2	Develop proposed process and decision-making criteria for each area of investment	6/30/2011	COMPLETED	Process and criteria documentation	Instituted process for Rounds 1, 2, 3, and 4.
2.3	Revise budget to reflect any work to be implemented directly by Ecology	9/30/2015	COMPLETED	Updated budget to EPA	Budget current. Submitted revised 424 for climate change project. This task may be complete now that we have received the round 6 award, but will keep open incase any returned funds are directed to Ecology projects by the core group.

2.4	Conduct Round 1 and 2 subaward process	3/31/2015	COMPLETED	Awards made and funds obligated	Process is complete for 100% of the funding. However, funding has started to be returned from completed projects. From this point on funds will have to be reviewed and redistributed quarterly to ensure all funds are spent.
	Manage active Round 1, 2, 3, and 4 awards	9/30/2017	COMPLETED	Progress reports from subawards	13 projects were still active to the end of this reporting period, and most will remain active to June 30, 2017. The projects are sub-awards (woodstove take backs, don't drip and drive, copper bottom boat paint alternative assessment, and OSS denitrification data testing), studies (metals in marinas, PAH in railroads, nutrients synopsis, ferry monitoring, OA modeling, sediment modeling), on-the-ground implementation (local source control implementation and nutrient nonpoint inspectors) and cooperative agreement administration (admin and QA).

23a. Work Plan Component/Task: Component #3: Adaptive Management					
23b. Action Agenda Action(s) Addressed: Same as above					
*23c. Estimated Costs: Actual Costs to Date: (If required by PO)					
23d. Sub-Task No.	23e. Sub-Task Description	*23f. Date	*23g. Status	23h. Outputs/Deliverables	*23i. Remarks
3.1	Participate in target development process	9/30/2011	COMPLETED	Recommended targets	PSP set targets
3.2	Participate in refinement of Dashboard indicators	9/30/2011	COMPLETED	Input to Dashboard design	PSP set indicators
3.3	Participate in revisions to Action Agenda	3/31/2017	COMPLETED	Proposed revisions submitted to PSP	9 Ecology staff participated in the transition team process that resulted in the 2016-2018 Action Agenda. That will be the last update supported under this cooperative agreement. Although this agreement primarily executed sub-strategies in past Action Agendas it does support NTAs regarding copper bottom boat paint Alternatives, local source control, non-point inspectors, and marina metals.

3.4	Participate in coordinated ecosystem monitoring program	9/30/2017	COMPLETED	Monitoring results in appropriate data bases	A priority thru April-June 30, 2017 is to migrate anything that was captured in EIM for NEP projects to STORET. A list has been given to our data management staff of projects needing transfer and all projects should be transferred by June 30, 2017.
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23a. Work Plan Component/Task: Component #4: Project Management

23b. Action Agenda Action(s) Addressed: Same as above

***23c. Estimated Costs:**

Actual Costs to Date:

(If required by PO)

23d. Sub-Task No.	23e. Sub-Task Description	*23f. Date	*23g. Status	23h. Outputs/Deliverables	*23i. Remarks
4.1	Develop six year strategic plan	6/15/2012	COMPLETED	Plan complete	Completed 6/15/2012.
4.2	Conducting environmental monitoring	9/30/2017	COMPLETED	Quality Assurance Management Plans and QAPPs as needed	QMP completed; QA coordinator hired. QA ongoing as part of subaward process.
4.3	Manage data from monitoring	9/30/2017	COMPLETED	Monitoring results in appropriate data bases	Ongoing work through life of project, as stated in component 3.4, uploads improving.
4.4	Report Results	0/30/2017	COMPLETED	FEATS reports	Ongoing work through life of project. Poor reporting period for sub-FEATS compliance. Not sure why as subs were given advanced notice and multiple warnings if late.
4.5	Conduct performance audits	9/30/2017	COMPLETED	Audit reports	Ongoing work through life of project. This cooperative agreement has received a performance audit.

23a. Work Plan Component/Task: Component #5: Matching Activities

23b. Action Agenda Action(s) Addressed: Same as above.

***23c. Estimated Costs:** \$16,650,852.00

Actual Costs to Date: \$16,650,852.00

(If required by PO)

23d. Sub-Task No.	23e. Sub-Task Description	*23f. Date	*23g. Status	23h. Outputs/Deliverables	*23i. Remarks
5.1	Account for \$16,650,852 million in matching activities - which activities and how much money.	9/30/2017	COMPLETED	SRF State Loan 10/13 - 2/17. Expands the Chambers Creek Regional wastewater treatment Plant. This plant treats wastewater from 117 square miles in five cities and unincorporated urban areas in Pierce County. L1400020.	\$16,650,852;Pierce County .Expend \$16,650,852.00.

CHALLENGES AND SOLUTIONS (specific to reporting period)

*24a. Task No., Sub-Task No.	*24b. Challenge	*24c. Solution
3/31/2017	Addressing agricultural sources of pollution continues to be one of the biggest challenges. The tools are limited, implementation is expensive, and consensus on necessary actions is difficult to obtain. The agricultural BMP has been under utilized.	Ecology had three grants with conservation districts complete eight BMP projects. The rest of the 38 reported were funded by DOH (given approval by Ecology) or from Ecology nonpoint inspector's technical assistance.
3/31/2017	We had 5 late Sub-FEATS reports.	It seems like longtime grant recipients are experiencing some kind of reporting fatigue. I have never had such a slew of late sub-FEATS reports. This late in the cooperative agreement though, the problem is moot as there is only one more report remaining.
3/31/2017	Staff turn over. Coordinator took a new position at Ecology.	Ecology management is making a plan forward for who will coordinate. Transition is going smoothly. Will contact EPA with contact.
9/30/2017	Personnel turn over: New coordinator brought in late May, just before the time to start closing down Rounds 1-4 projects. Coordinator also assisting with another high-level project within Ecology.	Coordinator received assistance from another financial manager brought in from another program within Ecology. Another staffmember who also works on NEP projects assists the new coordinator, and supervisor is also assisting the coordinator. Previous coordinator provides assistance also as he has time available.

HIGHLIGHTS/LESSONS LEARNED/REFLECTIONS

*25.

Ecology is currently managing 13 projects to prevent and manage toxics and nutrient pollution in Puget Sound. Through the six-year strategy and FFY 2013 workplan, we have identified spending priorities for toxics and nutrients. While funding lower-priority, less-controversial projects would have been more expedient in the near-term, the long-term outcome from the selected projects is expected to be greater. During this reporting period some highlights include:

- WDFW completed their toxics in juvenile Chinook project. The project was very successful. Many findings were predictable like outgoing Chinook in the Duwamish had 2.5 times the acceptable levels of PCBs associated with health. However, some findings were more surprising like very high levels of PBDEs in outgoing Nisqually steelhead.
- Core group voted to fund \$170,000 copper bottom boat paint alternative assessments project using \$170,000 of unspent funds from subawards. This work supports both our workplan and the state's copper bottom boat paint ban.
- Concluded Alternative Assessment project using Interstate Clearing House Guide including attached "Assessing Alternatives to Copper Antifouling Paint: Piloting the Interstate Chemicals Clearinghouse (IC2) Alternatives Assessment Guide."
- Two Hood Canal denitrification OSS systems are months into testing for real world performance and feasibility.
- The Pierce County woodstove removal program completed on-the-ground implementation. 299 woodstoves or fireplaces were removed resulting in an annual reduction of 276 pounds of PAHs.
- The northern Hood Canal piling removal project, which removed 894 piles and 1,335 tons of creosote-treated debris, was extended to perform an "after" round of effectiveness monitoring.
- Ag BMP contract executed with San Juan CD to install BMPs on 8 properties. Contract in negotiation with Snohomish CD for 4 BMP properties.
- Seattle Public Utilities pumped out over 50,000 sq. ft of storm drain. This has resulted in 297 tons of legacy-pollutant sediment being removed. Most of these pipes had never been cleaned.
- Ag BMP fund effort closed December 2016. This agreement directly funded 8 installations in three counties, but supported 38 BMP installations soundwide through technical assistance. Overall, we consider this a victory since the effort took about three years to get off the ground.

To have a successful control strategy you need a mix of scientific investigations (monitoring) that will help identify the biggest problems (prioritize investments) in addition to investments in implementation.

There could have been more investment in effectiveness monitoring which would allow for a more robust adaptive management approach.

Partnerships between stakeholders and regulators can educate both sides on problems and help develop solutions that work for the benefit of both parties. This increases credibility of the information produced.

Invest in infrastructure

More emphasis could have been given to data management so that results from all individual projects could be made electronically available to the public for future use.

Establish central location to post project deliverables. Partnership was going to do this but is never really happened.

Establishing a QA coordinator to review QAPPs and monitoring compliance with QA requirements was an important step in establishing a consistent QA program.

Final Lessons Learned

☐ This T/N grant allowed us to work with a period of time that allowed for the completion of the Salish sea model. Without that time frame we would not have been able to complete the model and have a good tool to inform the Marine Waters Initiative.

- ☐ The 6 year agreement allowed time for complex science projects to be developed to inform and enhance subsequent Round 5/6 projects.
- ☐ Including both the Puget Sound Partnership and EPA Region 10 on the T/N Core Team helped to coordinate project development and funding decisions.
- ☐ By using the T/N management team format to develop and manage the 2015 Strategic Initiative Transition Team (SITT) for nine months helped provide continuity of concept for the NEP models. However, this significantly impacted the close attention to detail required to manage this large complex federal grant.